

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P881594

Luminaire Tested: **NAV-SB1A-827-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881594
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3616 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G1

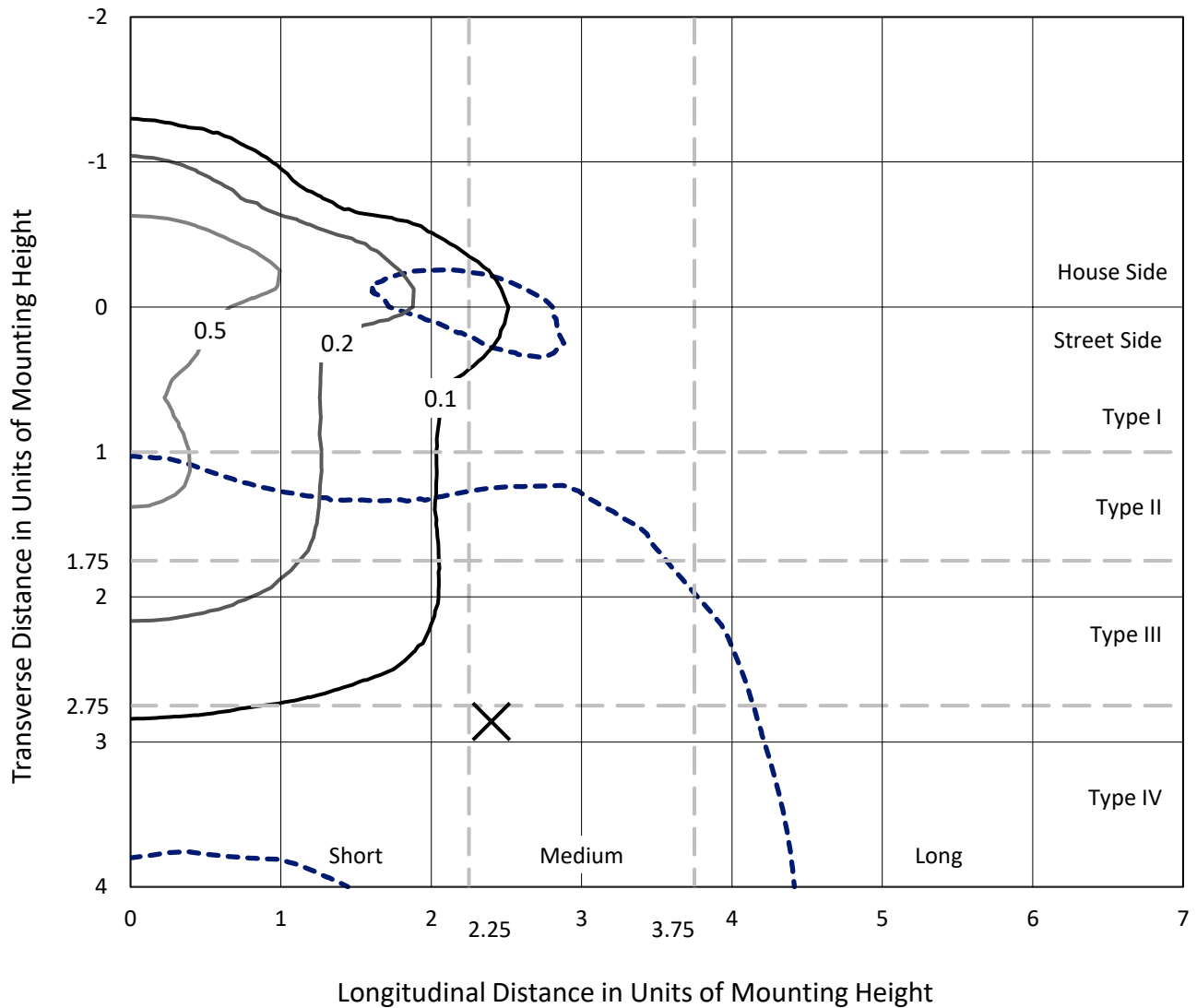
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

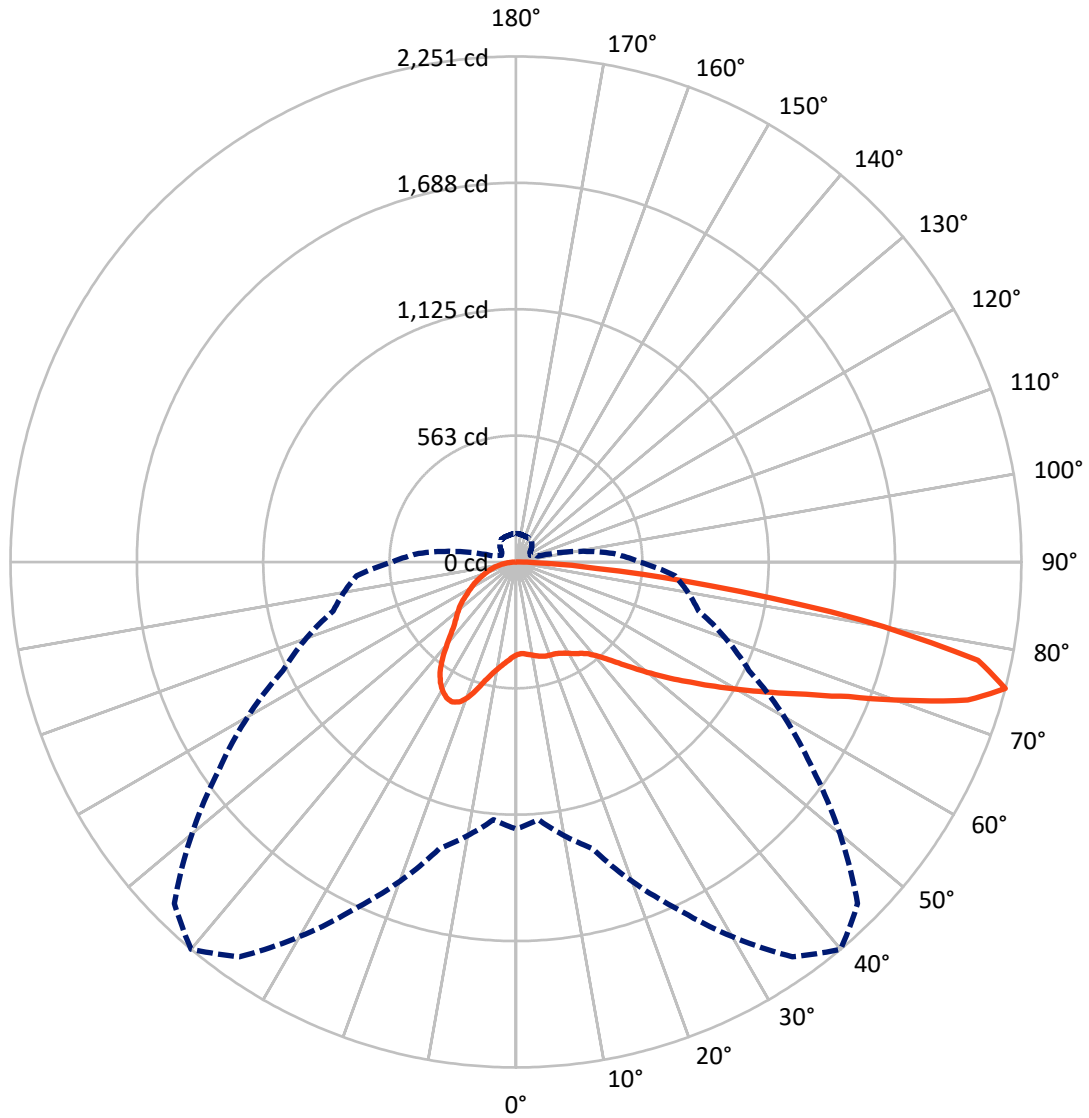
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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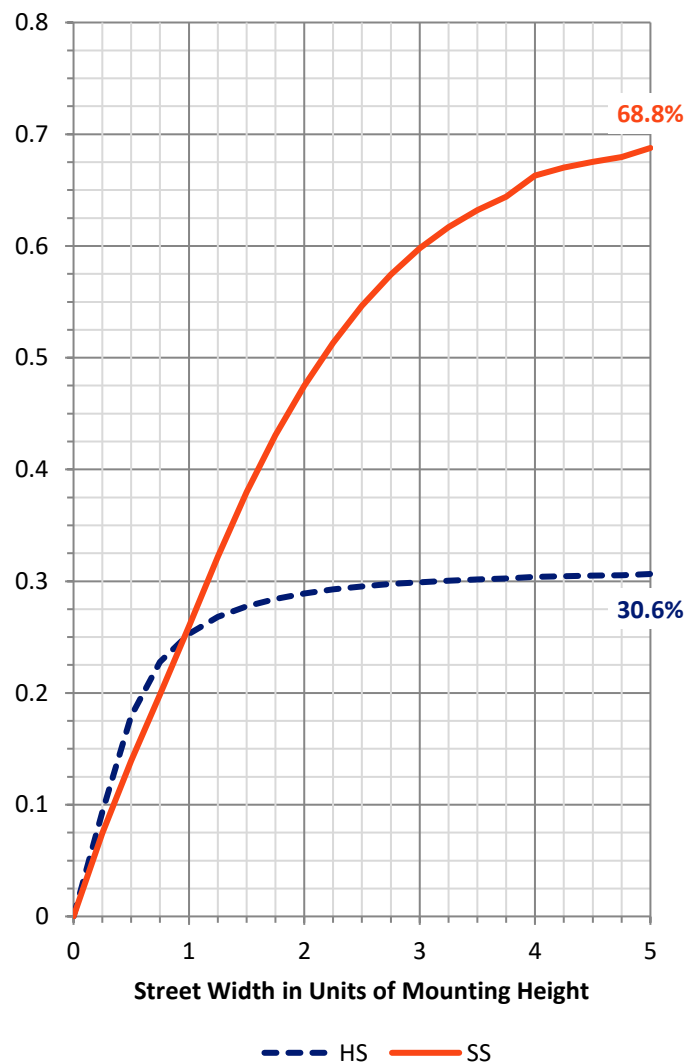
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1120.4	0.0	1120.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	2495.6	0.0	2495.6
	% Fixture	69.0	0.0	69.0
Total	Lumens	3616.0	0.0	3616.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	1.1
10°-20°	138.6	3.8
20°-30°	253.0	7.0
30°-40°	358.9	9.9
40°-50°	484.6	13.4
50°-60°	651.9	18.0
60°-70°	827.4	22.9
70°-80°	750.9	20.8
80°-90°	109.5	3.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	3616.0	100.0
0°-180°	3616.0	100.0

Coefficient of Utilization



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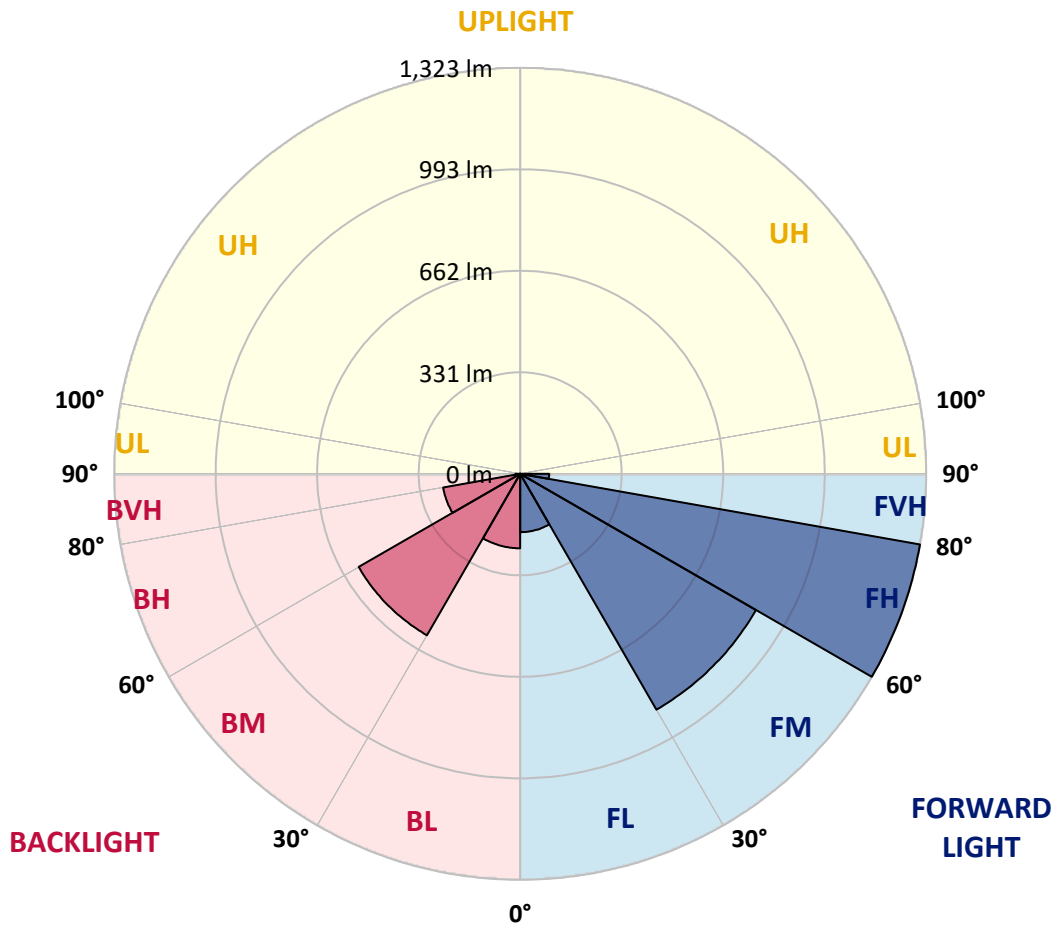
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	190.2	5.3			
FM (30°-60°)	887.6	24.5			
FH (60°-80°)	1323.4	36.6			G1/1800
FVH (80°-90°)	94.4	2.6			G1/100
BL (0°-30°)	242.7	6.7	B1/500		
BM (30°-60°)	607.7	16.8	B1/1000		
BH (60°-80°)	254.9	7.0	B1/500		G1/500
BVH (80°-90°)	15.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5
2.5°	407.2	409.5	408.9	408.1	408.1	408.3	408.1	409.5	410.8	412.2	414.3
5°	411.4	413.7	412.5	411.6	410.8	410.6	410.0	409.9	410.6	412.3	415.2
7.5°	419.6	421.9	420.2	418.5	416.9	416.2	415.4	414.3	413.7	414.6	418.7
10°	428.8	431.1	429.0	426.0	423.5	422.5	421.7	420.6	419.8	420.4	424.8
12.5°	438.0	440.3	437.5	433.2	430.0	429.4	428.5	428.1	427.9	427.7	432.1
15°	446.7	448.6	444.9	440.0	436.5	435.6	434.6	435.2	436.1	437.3	442.3
17.5°	453.4	455.3	449.9	443.4	440.2	439.8	439.2	441.1	443.8	446.7	452.8
20°	459.5	461.4	454.5	445.7	441.9	441.9	442.1	446.1	449.9	454.2	462.6
22.5°	468.2	469.7	461.2	449.2	443.6	444.0	445.5	449.6	454.3	460.1	471.8
25°	481.0	482.2	471.8	455.7	449.4	450.5	451.9	453.8	458.4	465.1	480.8
27.5°	501.7	502.7	489.1	467.2	457.6	459.5	461.4	460.1	462.2	468.0	488.1
30°	530.9	531.4	514.2	485.2	471.6	472.6	472.9	467.4	463.4	468.0	493.3
32.5°	565.4	565.2	544.7	507.1	487.5	486.6	483.3	472.4	463.0	467.0	497.9
35°	618.9	616.8	590.3	537.8	505.6	499.6	491.9	477.9	464.9	466.0	501.9
37.5°	707.5	701.0	664.4	588.0	532.4	517.3	505.9	486.9	469.1	465.7	506.7
40°	807.4	799.2	758.9	656.9	572.7	548.3	530.1	499.8	476.0	467.4	513.8
42.5°	926.0	914.3	870.9	738.0	623.7	588.4	561.0	516.1	486.2	472.9	523.4
45°	1071.5	1056.0	994.6	829.5	687.9	641.0	604.3	540.8	501.7	483.7	537.8
47.5°	1218.6	1222.5	1135.2	934.2	765.0	705.8	658.6	578.0	524.3	500.9	561.0
50°	1374.9	1377.6	1275.0	1050.2	852.5	779.0	719.6	619.7	555.8	525.5	595.7
52.5°	1496.9	1497.3	1402.0	1171.6	943.6	859.6	785.4	667.2	592.2	558.1	641.9
55°	1573.2	1572.3	1491.0	1286.5	1048.3	944.2	858.3	721.3	636.7	596.5	700.0
57.5°	1628.7	1625.8	1552.3	1385.3	1159.9	1044.1	940.7	782.7	689.3	642.1	776.5
60°	1649.8	1648.0	1593.9	1470.6	1277.3	1154.6	1035.8	851.3	748.9	696.0	874.9
62.5°	1657.8	1661.1	1634.8	1553.3	1402.9	1276.9	1140.4	933.4	816.1	757.0	978.7
65°	1686.2	1692.1	1686.8	1661.5	1544.9	1420.2	1279.0	1031.1	889.3	822.4	1087.1
67.5°	1742.4	1748.3	1750.6	1790.9	1718.2	1598.7	1452.0	1152.6	975.0	890.3	1168.6
70°	1741.0	1739.3	1780.0	1893.9	1935.3	1846.0	1685.2	1302.2	1077.3	946.7	1178.9
72.5°	1584.7	1570.9	1667.0	1892.8	2116.0	2104.1	1970.0	1495.2	1165.5	953.6	1023.0
75°	1188.9	1152.1	1321.8	1705.8	2146.1	2250.6	2151.1	1614.9	1144.6	842.5	711.9
77.5°	508.4	471.4	671.4	1262.7	1920.8	2103.9	1985.0	1408.9	913.7	557.1	349.6
80°	133.1	132.9	202.9	572.5	1306.3	1553.7	1363.0	909.8	522.0	199.1	96.5
82.5°	55.0	53.7	74.6	222.7	638.3	871.9	711.5	405.8	188.5	53.9	32.0
85°	20.5	20.3	36.2	76.9	225.2	359.6	260.3	103.8	47.0	26.3	14.4
87.5°	5.8	5.6	7.9	26.7	54.9	83.2	44.5	17.1	13.2	10.4	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5	413.5
2.5°	414.8	415.8	417.5	418.9	420.6	422.5	425.2	426.9	428.6	429.8	429.0
5°	416.6	418.7	423.1	427.5	432.7	437.5	443.0	447.1	450.3	451.3	451.7
7.5°	420.4	423.9	431.3	438.8	447.1	454.9	463.0	469.9	475.4	477.6	477.7
10°	427.1	431.7	442.3	452.8	463.7	475.8	486.2	496.2	504.0	507.3	507.5
12.5°	435.6	441.3	455.1	469.7	484.8	501.5	515.0	527.2	537.0	541.4	541.4
15°	446.5	454.0	471.6	491.2	513.4	536.6	553.7	567.3	578.2	583.6	583.2
17.5°	458.4	468.3	490.6	520.1	552.0	582.5	602.4	612.4	623.7	628.9	628.7
20°	469.9	482.2	514.0	557.0	599.3	631.7	647.9	650.5	651.3	651.9	653.4
22.5°	481.8	498.3	543.3	603.4	648.8	671.3	673.6	662.1	645.9	638.5	640.6
25°	494.8	516.7	581.7	654.6	691.4	694.1	676.4	648.4	617.9	603.9	606.0
27.5°	507.5	538.0	627.7	703.5	722.1	698.5	660.5	620.8	584.0	569.2	571.0
30°	520.1	562.3	678.5	746.2	736.1	687.6	635.4	591.1	554.1	538.5	540.3
32.5°	533.0	590.7	737.0	777.1	733.6	664.4	604.1	557.7	525.1	508.8	510.9
35°	547.6	625.6	792.5	794.0	716.9	630.2	562.9	517.8	489.4	476.4	479.3
37.5°	566.5	669.9	841.4	798.2	687.8	580.2	511.7	470.6	447.2	441.3	445.5
40°	590.1	723.2	878.8	791.5	644.6	519.4	455.7	422.9	409.7	411.0	415.6
42.5°	620.8	782.9	905.0	774.2	584.6	456.6	406.6	392.0	398.3	403.7	408.7
45°	660.7	844.8	921.3	744.9	516.7	403.5	377.6	381.1	385.9	386.5	390.3
47.5°	711.7	907.5	932.1	700.6	447.4	366.1	359.2	360.0	359.0	355.0	358.1
50°	775.4	968.5	941.7	641.9	388.6	342.7	333.5	330.8	317.6	304.6	306.3
52.5°	847.9	1024.5	945.7	569.0	342.7	323.2	308.2	291.3	266.6	262.6	263.9
55°	928.4	1076.3	935.3	479.5	304.2	298.0	275.4	255.1	252.4	248.9	249.5
57.5°	1024.7	1132.1	914.3	379.5	264.7	268.7	246.6	248.9	244.1	238.8	237.8
60°	1130.0	1189.9	877.2	288.4	223.8	232.1	239.2	239.0	237.6	233.2	231.7
62.5°	1224.8	1227.8	804.4	220.9	188.0	203.7	223.0	222.9	221.7	219.2	218.3
65°	1281.1	1222.1	682.8	174.0	158.4	180.3	201.2	202.7	202.9	202.7	202.7
67.5°	1271.2	1154.8	515.9	138.5	134.1	156.5	179.5	181.6	183.2	183.5	183.9
70°	1158.4	1006.9	336.4	110.5	112.4	135.6	159.0	161.1	162.4	164.0	164.7
72.5°	902.9	740.3	192.6	89.4	93.4	117.6	138.7	141.2	141.9	144.8	146.0
75°	550.2	435.4	103.9	70.4	76.7	100.5	118.5	121.4	122.7	126.2	126.6
77.5°	261.6	188.5	59.3	54.9	61.8	82.1	100.1	103.4	99.7	101.6	100.1
80°	88.4	70.0	37.4	41.8	47.2	64.1	80.2	83.4	75.8	75.4	74.6
82.5°	30.9	28.4	23.8	27.8	30.5	45.8	60.6	64.8	56.4	56.2	53.5
85°	12.1	11.5	13.2	15.2	18.2	28.2	39.9	42.0	34.7	28.0	27.6
87.5°	2.5	2.7	3.3	3.5	5.6	9.8	14.4	17.6	14.0	11.9	10.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)